AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in this application.

1. (Currently Amended) A method for reducing self sealing flow in a combined cycle double flow steam turbine, the method comprising:

providing a ~~brush seal in a packing ring of a packing ring assembly at either end~~ defining the double flow steam turbine

reducing clearance between a packing ring and a rotor at a first location, the first location being on a first end of a low-pressure turbine, by disposing a first brush seal at said first location;

reducing clearance between the packing ring and the rotor at a second location, the second location being adjacent to the first location, by disposing a second brush seal at said second location;

reducing clearance between the packing ring and the rotor at a third location, the third location being on a second end of the low-pressure turbine, by disposing a third brush seal at said third location; and

reducing clearance between the packing ring and the rotor at a fourth location, the fourth location being adjacent to the third location, by disposing a fourth brush seal at said fourth location;

whereby overall efficiency of the steam turbine is improved by the combined action of the four specifically positioned seals, thereby reducing higher pressure steam source requirements for self sealing of the steam turbine.

Claims 2-10. (Canceled)

11. (Currently Amended) An apparatus for reducing self-sealing flow in a combined cycle double flow steam turbine, the apparatus comprising:

a turbine housing;

a rotor rotatably disposed within said turbine housing;

~~a packing ring operably secured to an inner surface defined by said turbine housing at either end defining the double flow steam turbine, said packing ring extending radially inwardly toward said rotor; and~~

~~a brush seal disposed in said packing ring~~

a first brush seal for reducing clearance between a packing ring and a rotor at a first location, the first location being on a first end of a low-pressure turbine;

a second brush seal for reducing clearance between the packing ring and the rotor at a second location, the second location being adjacent to the first location;

a third bush seal for reducing clearance between the packing ring and the rotor at a third location, the third location being on a second end of the low-pressure turbine; and

a fourth brush seal for reducing clearance between the packing ring and the rotor at a fourth location, the fourth location being adjacent to the third location;

whereby overall efficiency of the steam turbine is improved by the combined action of the four specifically positioned seals, thereby reducing higher pressure steam source requirements for self sealing of the steam turbine.

Claims 12-22. (Canceled)

23. (New) The method of claim 1, wherein each of the first, second, third, and fourth brush seals has a plurality of bristles and each is configured to be flexible and compliant to limit steam flow variation within the steam turbine.

24. (New) The method of claim 23, wherein the plurality of bristles of each of the first, second, third, and fourth brush seals are metal bristles.

25. (New) The method of claim 23, wherein the plurality of bristles of each of the first, second, third, and fourth brush seals are welded to one another at their radially outermost ends and project radially at a cant angle.

26. (New) The method of claim 1, wherein the each of the first, second, third, and fourth brush seals are in contact with the rotor in a steady state operation range of the steam turbine.

27. (New) The method of claim 1, wherein each of the first, second, third, and fourth brush seals is configured to create a seal with an effective radial clearance of 0 and 5 mils between the packing ring and the rotor.

28. (New) The method of claim 1, wherein low-pressure steam within the steam turbine is given by [(Q LP –1) + (Q LP –2)], where Q is the required flow and LP is the low pressure.

29. (New) The apparatus of claim 11, wherein each of the first, second, third, and fourth brush seals has a plurality of bristles and each is configured to be flexible and compliant to limit steam flow variation within the steam turbine.

30. (New) The apparatus of claim 29, wherein the plurality of bristles of each of the first, second, third, and fourth brush seals are metal bristles.

31. (New) The apparatus of claim 29, wherein the plurality of bristles of each of the first, second, third, and fourth brush seals are welded to one another at their radially outermost ends and project radially at a cant angle.

32. (New) The apparatus of claim 11, wherein the each of the first, second, third, and fourth brush seals are in contact with the rotor in a steady state operation range of the steam turbine.

33. (New) The apparatus of claim 11, wherein each of the first, second, third, and fourth brush seals is configured to create a seal with an effective radial clearance of 0 and 5 mils between the packing ring and the rotor.

34. (New) The apparatus of claim 11, wherein low-pressure steam within the steam turbine is given by [(Q LP - 1) + (Q LP –2)], where Q is the required flow and LP is the low pressure.